

January 20, 2016

Mr. Bryce Bird, Director Utah Department of Environmental Quality Division of Air Quality 195 North 1950 West P.O. Box 144820 Salt Lake City, UT 84114-4820

And

RE:

Director, USEPA Region VIII 8 ENF-AT 1595 Wynkoop St. Denver, CO 80202 – 1129

Hun

Semiannual Compliance Report 40 CFR 63 SubPart UUUUU, Huntington Power Plant (Title V Permit #1501001004)

Dear Mr. Bird:

Huntington Power Plant's Title V Permit Conditions II.B.2.g.3 and II.B.3.f.3 requires the Huntington Plant submit Compliance Reports according to the requirements of 40 CFR §63.10031(b). This submittal is intended to satisfy that requirement.

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information, or omitting statements and information, including the possibility of fine or imprisonment.

Should you have any questions regarding this information, please contact Richard Neilson, Huntington Power Plant Environmental Engineer at (435) 687-4334 or me at (435) 687-4211.

Sincerely,

Darrell Cunningham

Managing Director Huntington Plant

Responsible Official

Enclosures: Mercury and Air Toxics Semiannual Compliance Report with attachments A thru D - Unit 1

Mercury and Air Toxics Semiannual Compliance Report with attachments A thru D - Unit 2

Mercury and Air Toxics Semi-Annual Compliance Report Huntington Power Plant Unit 1 Reporting Period April 16, 2015 to December 31, 2015

§63.100031(c)

The compliance report must contain the information required in paragraphs (c)(1) through (5) of this section.

§63.10031(c)(1)

The information required by the summary report located in 63.10(e)(3)(vi).

I. See Attachment A Summary Report—Gaseous Excess Emission and Continuous Monitoring System Performance

§63.10031(c)(2)

The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

Month	#2 Fuel Oil Burned (gallons)	Bituminous Coal Burned (tons)
April (4/16/2015 to 4/30/2015)	120	63,840.8
May	511	123,688.4
June	15,207	115,703.5
July	43,607	100,409.6
August	998	133,547.5
September	7,024	126,810.4
October	380	115,662.3
November	6,510	105,701.5
December	639	124,530.6
Total	74,996	1,009,894.4

Note: Fuel Oil burned is a product of refineries and the coal burned is a product of coal mines therefore all fuel burned was not a waste product.

§63.10031(c)(3)

Indicate whether you burned new types of fuel during the reporting period. If you did burn new types of fuel you must include the date of the performance test where that fuel was in use.

I. This is the initial compliance reporting period, the unit burned the same types of fuel as indicated in the Initial Compliance Notice Status during the reporting period which is Bituminous Coal and #2 Fuel Oil.

§63.10031(c)(4)

Include the date of the most recent tune-up for each unit subject to the requirement to conduct a performance tune-up according to § 63.10021(e). Include the date of the most recent burner inspection if it was not done every 36 (or 48) months and was delayed until the next scheduled unit shutdown.

I. The most recent boiler tune up was conducted on February 6, 2015, with the burner inspection occurring as part of the tune up.

§63.10031(c)(5)

For each instance of startup or shutdown:

§63.10031(c)(5)(i)

Include the maximum clean fuel storage capacity and the maximum hourly heat input that can be provided for each clean fuel determined according to the requirements of § 63.10032(f).

I. The clean fuel storage capacity and maximum hourly heat input data can be found in Attachment B Startup/Shutdown Report.

§63.10031(c)(5)(ii)

Include the information required to be monitored, collected, or recorded according to the requirements of §63.10020(e).

I. Information required in §63.10020(e) can be found in Attachment B Startup/Shutdown Report.

§63.10031(c)(5)(iii)

If you choose to use CEMS for compliance purposes, include hourly average CEMS values and hourly average flow rates. Use units of milligrams per cubic meter for PM CEMS, micrograms per cubic meter for Hg CEMS, and ppmv for HCl, HF, or SO2 CEMS. Use units of standard cubic meters per hour on a wet basis for flow rates.

I. The Unit is using an SO₂ and Hg CEMS for compliance purposes. The hourly averages during startup and shutdown periods are found in Attachment B Startup/Shutdown Report.

§63.10031(c)(5)(iv)

If you choose to use a separate sorbent trap measurement system for startup or shutdown reporting periods, include hourly average mercury concentration in terms of micrograms per cubic meter.

I. The Unit is not using a separate sorbent trap measurement system for startup or shutdown reporting periods.

$\S63.10031(c)(5)(v)$

If you choose to use a PM CPMS, include hourly average operating parameter values in terms of the operating limit, as well as the operating parameter to PM correlation equation.

I. The Unit is not using a PM CPMS for compliance.

§63.10031(d)

For each excess emissions occurring at an affected source where you are using a CMS to comply with that emission limit or operating limit, you must include the information required in §63.10(e)(3)(v) in the compliance report specified in section (c).

$\S63.10(e)(3)(v)$

All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of

each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in §63.8(c)(7) and §63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

§63.10(c)(5)

The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

I. CEMS monitor unavailability can be found in Attachment C CEMS Monitor Outage Report.

§63.10(c)(6)

The date and time identifying each period during which the CMS was out of control, as defined in §63.8(c)(7);

 CEMS out of control periods can be found in Attachment C CEMS Monitor Outage Report.

§63.10(c)(7)

The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;

 Excess emissions and monitor exceedances that occurred during startups, shutdowns, and malfunctions can be found in Attachment D Excess Emissions Report.

§63.10(c)(8)

The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

I. Excess emissions and monitor exceedances that occurred during period other than startups, shutdowns, and malfunctions can be found in Attachment D Excess Emissions Report.

§63.10(c)(10)

The nature and cause of any malfunction (if known);

I. Malfunctions nature and causes can be found in the Attachment D Excess Emission Report.

§63.10(c)(11)

The corrective action taken or preventive measures adopted;

I. The corrective actions taken or preventive measures adopted as a result of malfunctions can be found in Attachment D Excess Emission Report.

§63.10(c)(12)

The nature of the repairs or adjustments to the CMS that was inoperative or out of control;

I. The nature of repairs or adjustments to CMS is found in Attachment C CEMS Monitor Outage Report.

§63.10(c)(13)

The total process operating time during the reporting period;

I. Total process operating time during reporting period can be found in section (H) of Attachment A Summary Report—Gaseous Excess Emission and Continuous Monitoring System Performance.

§63.10031(e)

Each affected source that has obtained a Title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 8 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

- I. Any Deviations to emissions limits are identified in Attachment D Excess Emission Report
- II. There are no operating limits associated with compliance to the Mercury and Air Toxics Standards for this Unit.
- III. There were no deviations related to the Work Practice Standard related to Boiler Tune Up requirements.
- IV. CMS were in service during all phases of operation including startup according to the required Work Practice Standard except for periods identified in Attachment C CEMS Monitor Outage Report.
- V. Clean fuel was burned during each startup as required by the Work Practice Standard.

§63.10031(g)

If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.

I. Malfunctions during the reporting period are identified in Attachment D Excess Emissions Report

Attachment A

Summary Report—Gaseous Excess Emission and Continuous Monitoring System Performance

§63.10(e) (3) (vi) Summary Report

- (A) The company name and address of the affected source;
 - I. Huntington Power Plant, 6 miles west of Huntington Utah on Hwy 31
 P.O. Box 680
 Huntington, Utah 84528
- (B) An identification of each hazardous air pollutant monitored at the affected source;
 - I. Non-Mercury HAPS metal using a quarterly Filterable particulate matter (PM) stack test as a surrogate to demonstrate compliance
 - II. Acid Gases using Sulfur dioxide (SO₂) as a surrogate to demonstrate compliance by an SO₂ continuous emission monitor system (CEMS)
 - III. Mercury (Hg), compliance demonstrated by continuous emission monitor system (CEMS)
- (C) The beginning and ending dates of the reporting period;
 - I. This report covers the reporting period from April 16, 2015 to December 31, 2015.
- (D) A brief description of the process units;
 - I. Unit 1 is an Electric Utility Steam Generating Unit, designed as a bottom tangentially-fired boiler, designed by Babcock & Wilcox.
 - II. Rated Heat Input Capacity (mmBtu/hr) of 4,960 MMBtu/hr.
 - III. The unit is equipped with the following add-on controls
 - a. Pulse Jet Fabric Filter (baghouse)
 - b. Wet Flue Gas Desulfurization (wet scrubber)
 - c. LowNOx burner technology, w/Seperated overfire air
 - IV. Fuels used are bituminous coal and #2 fuel oil for startup fuel when needed.
- (E) The emission and operating parameter limitations specified in the relevant standard(s);
 - I. Taken from Table 2 to Subpart UUUUU of Part 63 Emission Limits
 - Unit 1 is an existing unit in the coal-fired not low rank virgin coal subcategory demonstrating compliance with the following emission limits:
 - i. Filterable particulate matter (PM) quarterly stack testing demonstrating compliance with 3.0E-2 lb/MMBtu (0.030 lb/MMBtu) emission limit.

- ii. Sulfur dioxide (SO₂) continuous emission monitor system (CEMS) reporting hourly averages in units of lb/mmBtu, as a surrogate for acid gases demonstrating compliance with a 30 boiler operating day average of 2.0E-1 lb./MMBtu (0.20 lb./mmBtu).
- iii. Mercury (Hg) continuous emission monitor system (CEMS) reporting hourly averages in units of lb/Tbtu demonstrating compliance with a 30 boiler operating day average of 1.2E0 lb./TBtu (1.2 lb./TBtu).
- (F) The monitoring equipment manufacturer(s) and model number(s);

Pollutant	Manufacture	Model Number
Sulfur Dioxide (SO ₂)	Thermo	43i
Mercury (Hg)	Thermo	80i
Carbon Dioxide (CO ₂)	Thermo	410i

Note: CO2 analyzer used as a diluent monitor for calculating Heat Input Based Emission Limits

(G) The date of the latest CMS certification or audit;

CEMS Analyzer	Latest RATA Date	Latest Linearity Date
Sulfur Dioxide (SO ₂)	5/14/2015	11/12/2015
Mercury (Hg)	5/14/2015	12/7/2015
Carbon Dioxide (CO ₂)	5/14/2015	11/12/2015

Note: The SO2 and CO₂ analyzers were certified for reporting under the Acid Rain Program prior to the initial compliance date of April 16, 2015. The Hg analyzer initial certification was on May 14, 2014.

(H) The total operating time of the affected source during the reporting period;

Operating Period	Hours of Unit Operation
4/16/2015 to 6/30/2015 2 nd Quarter	1774.52
7/1/2015 to 9/30/2015 3 rd Quarter	2132.17
10/1/2015 to 12/31/2015 4 th Quarter	2208.00
Total Operating time from 4/16/2015 to 12/31/2015	6114.69

(I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

Excess Emissions Summary	PM	SO ₂	Hg
Total Hours of Exceedance	0	0	0
Exceedance percent of total operating hours	0.0	0.0	0.0
Hours during startup and shutdown	0	0	0
Hours during control equipment problems	0	0	0
Hours during process hours	0	0	0
Hours during other know problems	0	0	0
Hours during unknown causes	0	0	0
Emission Limit	0.030	0.20	1.2
Emission Limitation Unit	lb/MMBtu	lb/MMBtu	Lb/TBtu
Emission limitation	Quarterly Stack	30 boiler	30 boiler
averaging period	Testing	operating day	operating day

(J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

CMS Performance Summary	SO ₂	Hg
Downtime percent of total operating hours	0.016	1.05
Total hour of CMS downtime	1	64
Hours due to monitoring equipment malfunctions	0	43
Hours due to non-monitoring equipment malfunctions	0	0
Hours due to quality assurance/quality control calibrations	0	20
Hours due to other known causes	1	1
Hours due to other unknown causes	0	0

(K) A description of any changes in CMS, processes, or controls since the last reporting period;

This is the initial reporting period.

(L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

Darrell J Cunningham Responsible Official

Managing Director - Huntington Power Plant

(M) The date of the report.

Date:

Attachment B

Startup/Shutdown Report

§63.10031(c)(5)

For each instance of startup or shutdown:

§63.10031(c)(5)(i)

Include the maximum clean fuel storage capacity and the maximum hourly heat input that can be provided for each clean fuel determined according to the requirements of §63.10032(f).

Total Fuel Oil Storage Capacity for the facility is 210,000 gallons

§63.10032(f)(3)

You must keep records of the determination of the maximum hourly clean fuel heat input and of the hourly clean fuel heat input for each EGU

- I. Maximum Fuel Oil Heat Input is 138,911 BTU/gal
- II. Hourly Fuel Oil Heat Input is reported in each startup/shutdown reports below

§63.10031(c)(5)(ii)

Include the information required to be monitored, collected, or recorded according to the requirements of §63.10020(e).

§63.10020(e)

63.10020(e)(1)

During each period of startup, you must record for each EGU:

§63.10020(e)(1)(i)

The date and time that clean fuels being combusted for the purpose of startup begins;

§63.10020(e)(1)(ii)

The quantity and heat input of clean fuel for each hour of startup;

§63.10020(e)(1)(iii)

The electrical load for each hour of startup;

§63.10020(e)(1)(iv)

The date and time that non-clean fuel combustion begins; and

§63.10020(e)(1)(v)

The date and time that clean fuels being combusted for the purpose of startup ends.

I. Information for Unit startups are found in each startup/shutdown report below

§63.10020(e)(2)

During each period of shutdown, you must record for each EGU: §63.10020(e)(2)(i)

The date and time that clean fuels being combusted for the purpose of shutdown begins;

§63.10020(e)(2)(ii)

The quantity and heat input of clean fuel for each hour of shutdown;

§63.10020(e)(2)(iii)

The electrical load for each hour of shutdown;

§63.10020(e)(2)(iv)

The date and time that non-clean fuel combustion ends; and

§63.10020(e)(2)(v)

The date and time that clean fuels being combusted for the purpose of shutdown ends.

I. Information for Unit shutdowns are found in each startup/shutdown report below.

§63.10020(e)(3)

For PM or non-mercury HAP metals work practice monitoring during startup periods, you must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.10011(1).

§63.10020(e)(3)(i)

Except for an EGU that uses PM CEMS or PM CPMS to demonstrate compliance with the PM emissions limit or that has LEE status for filterable PM or total non-Hg HAP metals for non- liquid oil-fired EGUs (or HAP metals emissions for liquid oil-fired EGUs), or individual non-mercury metals CEMS you must:

§63.10020(e)(3)(i)(A)

Record temperature and flow rate of post-combustion (exhaust) gas and amperage of forced draft fan(s) upstream of each filterable PM control device during each hour of startup.

I. Post Combustion hourly gas temperature and flow rates and force draft fan amps are found in each of the startup/ shutdown reports below.

§63.10020(e)(3)(i)(B)

Record temperature and flow rate of exhaust gas and amperage of induced draft fan(s) downstream of each filterable control device during each hour of startup.

 Downstream Baghouse hourly gas temperature and flow rates and induced draft fan amps are found in each of the startup/ shutdown reports below.

§63.10020(e)(3)(i)(C)

For an EGU with an electrostatic precipitator, record the number of fields in service, as well as each field's secondary voltage and secondary current during each hour of startup.

I. A precipitator is not installed on the Unit.

§63.10020(e)(3)(i)(D)

For an EGU with a fabric filter, record the number of compartments in service, as well as the differential pressure across the baghouse during each hour of startup.

I. Hourly baghouse data is found in each of the startup/shutdown reports below.

§63.10020(e)(3)(i)(E)

For an EGU with a wet scrubber needed for filterable PM control, record the scrubber liquid to fuel ratio and the differential pressure of the liquid during each hour of startup.

I. A wet scrubber is installed on the Unit however a baghouse is the PM control device for the unit.

During the reporting period the Unit experience the following startup/shutdown periods (detailed reports for each period are found below:

Event Number	Shutdown Date	Startup Date
1	6/14/2015	6/16/2015
2	7/5/2015	7/8/2015
3	7/8/2015	7/8/2015
4	7/18/2015	7/19/2015
5	9/2/2015	9/3/2015

Detailed startup/shutdown reports follow:

Shutdown

Event # 1

Unit	1

Total Fuel Oil	Marie III	
Storage	210000	
Capacity (gal)	200	
Maximum Fuel		
Oil Heat Input	138911	
(BTU/gal)		

	Date	Time*
Date and Time Unit off Line	6/14/2015	7:29
Start of Fuel Oil for Shutdown	6/14/2015	6:20
End of Coal Combustion	6/14/2015	6:59
End of Fuel Oil Combustion	6/14/2015	7:10

- A199 - 489 4	Shutdo	wn Fuel	Emis	sions	Load
Hour *	Quantity Fuel Oil burned (gals/hr)	Fuel Oil Heat Input (BTU/Hr)	Hg (μg/scm)	SO2 (ppm)	Unit load (GMWH)
7:00	204.5	28407299.5	0.237	0.3	23

^{* =} Mountain Standard Time

Startup

Event # 1

Unit

	Date	Time*
Start of Fuel Oil Combustion	6/16/2015	8:30
start of Coal Combustion	6/16/2015	11:08
End of Fuel Oil Combustion	6/16/2015	11:25
ate and Time Juit on Line	6/16/2015	11:25

	(gal) Maximum Fuel	210000
--	--------------------	--------

	Load	Joan	Unit load (GMWH)			0	0		0	21				_
	1		SO2 (ppm) Uni	_					7	9			1	_
	Emissions	CITOTO				0	0		0.1	9.0				
	FH		Hg (µg/scm)			0.279	Invalid	0000	0.302	0.21				
	nse		Differential Pressure Across the Baghouse (in	п ₂ O) (avg)	-0.0	3.07	2.79	2 11	2.11	3.62				
	Baghouse		Number of Compartments in Service			4	4	4		4				
	nse		ID Fan Amps (avg)		123	771	157	155	154	124				
0	Downstream Baghouse		Flow Rate (scmh)		770058	145000	0/704/	742680	820649	010000				
Č	NOCT		Temperature (Deg F)		82.3	000	27.7	141.6	168.8	0.00				
achonse	-Sugar		FD Fan Amps (each/avg)		308	392	200	555	361					
Post Combustion are Baghouse	Total Warrant		Flow Rate (scmh)		770058	745276	007070	147080	839648					
Post Co			Temperature (Deg F)		91.3	231.7	400.2	400.0	401.0					
Startup Fuel			Quantity Fuel Oil Heat Oil burned Input (gals/hr) (BTU/Hr)		23/2825/	345332746	296436074	10000	401869523					
Start			Quantity Fuel Oil burned (gals/hr)	100	38/	2486	2134	0000	7893					
			Hour	00.0	0.00	00:6	10:00	11.00	11:00					

*=Mountain Standard Time
**=Gross Heating value - fuel log maximum ytd

Unit	1
------	---

Total Fuel Oil Storage Capacity (gal)	210000
Maximum Fuel Oil Heat Input (BTU/gal)	138911

	Date	Time*
Date and Time		
Unit off Line	7/5/2015	18:49
Start of Fuel Oil for	=	
Shutdown	7/5/2015	17:20
End of Coal		
Combustion	7/5/2015	18:33
End of Fuel Oil		
Combustion	7/5/2015	18:44

	Shutde	own Fuel	Emis	sions	Load
Hour *	Quantity Fuel Oil burned (gals/hr)	Fuel Oil Heat Input (BTU/Hr)	Hg (μg/scm)	SO2 (ppm)	Unit load (GMWH)
18:00	581.1	80721182.1	0.057	2.1	89

^{* =} Mountain Standard Time

Startup

Event # 2

Unit

_			(trip)	:
Time*	22:12	1:47	3:06	1:45
Date	7/7/2015	7/8/2015	7/8/2015	7/8/2015
	Start of Fuel Oil Combustion	Start of Coal Combustion	End of Fuel Oil Combustion	Pate and Time Unit on Line

138911	Maximum Fuel Oil Heat Input (BTU/gal)**
210000	Storage Capacity (gal)

Startup Fuel		Post Cor	Post Combustion pre Baghouse	ghouse	Dow	Downstream Backouse	001					
	1				MOC.	mencam pagnor	TSC	Baghouse	ise	Emis	Emissions	Load
<u>.</u>		Temperature	Flow Rate	FD Fan Amns	Temperature	Flow Data	£ 5.0	Number of	Differential Pressure			
		(Deg F)	(scmh)	(each/avg)	(Deg F)	(scmh)	(avg)	Compartments in Service	Across the Baghouse (in	Hg (µg/scm)	SO2 (ppm)	Unit load (GMWH)
									H ₂ O) (avg)			
222396511		88	763170	10	Droha	001000						
176833703		130	203330	100	11000	0/100/	749	3	4.74	0.046	C	C
20000000		OCT.	170000	3	Out	855627	253	3	4 81	0.032		
203001010		1/2	934171	96	Of	034171	252	,		20.0	0	0
272404471		191	088457	20		1/11/00	677	3	4.88	0.051	0	0
			10000	1/2	Service	988457	254	3	4.69	0.264	0.3	-
											2:5	
	l											
	1											

^{*=}Mountain Standard Time
**=Gross Heating value - fuel log maximum ytd

Shutdown

Event # 3

Unit	1

Total Fuel Oil	210000
Storage Capacity (gal)	210000
Maximum Fuel	
Oil Heat Input	138911
(BTU/gal)	-

	Date	Time*	
Date and Time Unit off Line	7/8/2015	3:07	U
Start of Fuel Oil for Shutdown	7/8/2015	3:05	
End of Coal Combustion	7/8/2015	3:05	
End of Fuel Oil Combustion	7/8/2015	3:07	

Unit trip

	Shutdo	wn Fuel	Emis	sions	Load
Hour *	Quantity Fuel Oil burned (gals/hr)	Fuel Oil Heat Input (BTU/Hr)	Hg (μg/scm)	SO2 (ppm)	Unit load (GMWH)
3:00	132	18336252	0.1	15	10

^{* =} Mountain Standard Time

Startup

Event # 3

Unit

11:15 8:15 9:22 9:23 7/8/2015 7/8/2015 7/8/2015 7/8/2015 Date and Time Unit on Line Start of Coal Combustion Start of Fuel Oil Combustion End of Fuel Oil Combustion

210000	138911
Total Fuel Oil	Maximum Fuel
Storage Capacity	Oil Heat Input
(gal)	(BTU/gal)**

	Load	15 (D)		0	34				
	Emissions	2 (ppm)		0	5.4				
	Emis	Hg (µg/scm)	0,000	0.008	0.062				
	ıse	Differential Pressure Across the Baghouse (in H ₂ O) (avg)	8	2.03	3.90				
	Baghouse	Number Compartme Servic	v	0	5				
	ise	ID Fan Amps (avg)	231	-	738				
-	Downstream Baghouse	Flow Rate (scmh)	792367	000000	010068				
	AOCT	Temperature (Deg F)	Probe Out of Service	1000	107.0				
estioqo	Sugar	FD Fan Amps (each'avg)	92	60	77				
Post Combustion are Baohouse	and manage	Flow Rate (scmh)	792367	895510					
Post Co.		Temperature (Deg F)	159.0	202.0					
Startup Fuel		Quantity Fuel Fuel Oil Heat Oil burned Input (gals/hr) (BTU/Hr)	233648302	225452553					
Startu		Quantity Fuel Oil burned (gals/hr)	1682	1623					
		Hour	8:00	9:00					

^{*=}Mountain Standard Time
**=Gross Heating value - fuel log maximum ytd

Shutdown

Event # 4

	1
el Oil	
apacity	210000
apacity	

(gal)

Maximum Fuel Oil
Heat Input
(BTU/gal)

	Date	Time*
Date and Time Unit off Line	7/18/2015	22:48
Start of Fuel Oil for Shutdown		
	7/18/2015	21:51
End of Coal Combustion	7/18/2015	22:43
End of Fuel Oil Combustion	7/18/2015	22:48

	Shutdo	wn Fuel	Emis	sions	Load
Hour *	Quantity Fuel Oil burned (gals/hr)	Fuel Oil Heat Input (BTU/Hr)	Hg (μg/scm)	SO2 (ppm)	Unit load (GMWH)
22:00	1108.14	153932835.5	0.138	9.9	104

^{* =} Mountain Standard Time

Startup

Event # 4

13:44 15:10 16:35 15.19 7/19/2015 7/19/2015 7/19/2015 7/19/2015 Date and Time Unit on Line Start of Coal Combustion Start of Fuel Oil Combustion End of Fuel Oil Combustion

210000	138911
Total Fuel Oil	Maximum Fuel
Storage Capacity	Oil Heat Input
(gal)	(BTU/gal)**

Startup Fuel Post Combustion pre Bagh		Post Combus	mpns	tion pre Ba	ghouse	Dow	Downstream Baghouse	Ise	Baghouse	Se	L		
									nowan	255	Emis	Emissions	Load
Quantity Fuel Fuel Oil Heat Temperature Flow Rate FD Fan Amps	Temperature Flow Rate	Temperature Flow Rate	1,170	FD Fan Am	sd	Temperature	Flow Rate	ID Fan Amns	Number of	Differential Pressure	2		
(Deg F)	(Deg F) (scmh)	(Deg F) (scmh)		(each/avg		(Deg F)	(scmh)	(avg)	Compartments in Service	Across the Baghouse (in H ₂ O) (avg)	Hg (µg/scm)	SO2 (ppm)	Unit load (GMWH)
56.1 7785961.55 131.2 748337 22.4	131.2 748337	748337	H	1,00	Γ	***	240000						l
700010	100010	10001	+	1777	T	Out	/4835/	61.7	7	4.04	0.170	c	<
36013773.37	1/5.3 8129/6	812976		152.8		Of	812976	3474	C	176	0.170		0
2/2.9 37908811.9 207 912818 156.9	207 912818	912818		1569		Corrigo	010010		7	4.00	0.173	9.0	0
+	+	+	+	120.7	T	OCI VICE	917918	357.1	2	3.90	0.152	1.5	28
													2
					T						N. STATE OF THE PARTY OF THE PA		
					1								
					1								

^{*=}Mountain Standard Time
**=Gross Heating value - fuel log maximum ytd

Shutdown

(BTU/gal)

Unit

Event # 5

Total Fuel Oil	
Storage Capacity	210000
(gal)	
Maximum Fuel Oil	
Heat Input	138911

	Date	Time*]
Date and Time Unit off Line	9/2/2015	19:40	
Start of Fuel Oil for Shutdown			
	9/2/2015	NA	(unit trip)
End of Coal Combustion	9/2/2015	19:40	
End of Fuel Oil Combustion	9/2/2015	NA	

1	Shutdo	wn Fuel	Emis	sions	Load
Hour *	Quantity Fuel Oil burned (gals/hr)	Fuel Oil Heat Input (BTU/Hr)	Hg (μg/scm)	SO2 (ppm)	Unit load (GMWH)
19:00	0	0	0.213	34.1	322

^{* =} Mountain Standard Time

Startup

Unit

Event # 5

23:44 0:52 1:35 9/3/2015 9/3/2015 9/2/2015 Start of Coal Combustion Start of Fuel Oil Combustion End of Fuel Oil Combustion 0:44

9/3/2015

Date and Time Unit on Line

210000	138911
Total Fuel Oil	Maximum Fuel
Storage Capacity	Oil Heat Input
(gal)	(BTU/gal)**

	Load	<u> </u>		C	2	13					_
	Emissions	SO2 (ppm)		_	10	0.1					
	Emis	Hg (µg/scm)		0.205	0.216	0.210					
	ISe	Differential Pressure Across the Baghouse (in H ₂ O) (avg)		4.20	4.45	2::					
	Baghouse	Number of Compartments in Service		∞	~						
	ıse	ID Fan Amps (avg)		223	380.5						
	Downstream Baghouse	Flow Rate (scmh)	007.000	832423	1044406						
6	Dow	Temperature (Deg F)	0.001	170.0	210.0						
aboute	Snonse	FD Fan Amps (each'avg)	75.00	22.01	163.2						
Post Combustion are Backeyse	monarion pre Da	Flow Rate (scmh)	832423	7011101	1044406						
Post Co	001001	Temperature (Deg F)	159	000	507						
Startup Fuel		Quantity Fuel Fuel Oil Heat Oil burned Input (gals/hr) (BTU/Hr)	89736506	241044051	100440147						
Startu		Quantity Fuel Oil burned (gals/hr)	646.0	1741 0	0.11.7						
		Hour	23:00	0.00							

^{*=}Mountain Standard Time
**=Gross Heating value - fuel log maximum ytd

Attachment C

CEMS Monitor Outage Report

Sulfur Dioxide (SO₂) System Monitor Outage (lb/MMBtu)

Monitor Outage Incident Number	Date	Time Beginning	Time Ending	Hours Involved	Out of Control (Y/N)	Cause*	Corrective *Action
1	10/31/2015	02:00	02:59	1	N	724	a

Total	duration	of monitor	downtime	1	hours
1 Out	auracion	or monitor	do William		Hours

Description of Causes/Corrective Actions.

Description	Causes/Corrective Actions.
*Cause: 724	Hours due to other known causes
*Corrective Action: a	The Data Management System (DMS) was
	temporarily out of service in order to download software revisions, re-boot the server or
	individual CEMS, hardware fault, or DCS
	communication failure.

Mercury (Hg) System Monitor Outage (lb/TBtu)

Monitor Outage Incident Number	Date	Time Beginning	Time Ending	Hours Involved	Out of Control (Y/N)	Cause*	Corrective * Action
1	5/12/2015	12:00	12:59	1	N	723	jj
2	6/16/2015	9:00	9:59	1	N	723	v
3	7/9/2015	00:00	08:59	9	Y	723	11
4	7/10/2015	5:00	14:59	10	Y	721	a
5	7/16/2015	5:00	07:59	3	Y	721	a
6	7/29/2015 to 7/30/2015	5:00	05:59	25	Y	721	a
7	8/05/2015	9:00	13:59	5	N	723	v
8	10/31/2015	2:00	02:59	1	N	724	a
9	11/10/2015	12:00	12:59	1	N	723	jj
10	11/19/2015	13:00	14:59	2	N	723	v
11	11/20/2015	5:00	09:59	5	Y	721	a
12	12/02/2015	10:00	10:59	1	N	723	С

Total duration of monitor downtime ___64__ hours

See Next Page for description of Causes/Corrective Actions.

Description of Causes/Corrective Actions.

Description of Caus	1					
*Cause: 721 *Corrective Action: a	Hours due to monitoring equipment malfunctions The monitor failed its daily calibration drift test by more than 4 times the performance specification. The monitor was cleaned/inspected/ recalibrated and returned to service.					
*Cause: 723	Hours due to quality assurance/quality control calibrations					
*Corrective Action: a	The monitor was unavailable during the daily monitor calibration as required by 40 CFR parts 60 and 75.					
V	Monitors were unavailable while maintenance was being performed on the sample transport system, lines, valves, conditioner, pumps, etc. After completion system was returned to service.					
jj	Quarterly calibrator audit, followed by calibration.					
11	Mercury weekly integrity test was not completed within 7 boiler operating days.					
*Cause: 724	Hours due to other known causes					
*Corrective Action: a	The Data Management System (DMS) was temporarily out of service in order to download software revisions, re-boot the server or individual CEMS, hardware fault, or DCS communication failure.					

Attachment D

Excess Emissions Report

PM Excess Emissions

0.030 lb/MMBtu (Quarterly Stack Testing)

Excess Emission Incident Number	Magnitude of Excess Emissions lb/MMBtu	Date	Time Beginning	Time Ending	Hours Involved	Malfunction Y/N	Cause	Corrective Action

Total time for all excess emissions <u>0.0</u> hours

Total time for excess emissions occurring during startup/shutdown or malfunction 0.0 hours

Malfunction reason and corrective /preventive action taken)

No PM Excess Emissions occurred during the reporting period No PM Malfunction occurred during the reporting period

SO₂ Excess Emissions

0.20 lb/MMBtu (30 Boiler Operating Day Average)

Excess Emission Incident Number	Magnitude of Excess Emissions lb/MMBtu	Date	Time Beginning	Time Ending	Hours Involved	Malfunction Y/N	Cause	Corrective Action
		7.55						

Total time for all excess emissions 0.0 hours

Total time for excess emissions occurring during startup/shutdown or malfunction <u>0.0</u> hours

Malfunction reason and corrective /preventive action taken)

No SO₂ Excess Emissions occurred during the reporting period No SO₂ Malfunction occurred during the reporting period

Hg Excess Emissions

1.2 lb/TBtu (30 Boiler Operating Day Average)

Excess Emission Incident Number	Magnitude of Excess Emissions lb/MMBtu	Date	Time Beginning	Time Ending	Hours Involved	Malfunction Y/N	Cause	Corrective Action

Total time for all excess emissions <u>0.0</u> hours Total time for excess emissions occurring during startup/shutdown or malfunction <u>0.0</u> hours

Malfunction reason and corrective /preventive action taken)

No Hg Excess Emissions occurred during the reporting period No Hg Malfunction occurred during the reporting period